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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,856	04/26/2001	J. J. Garcia-Luna-Aceves	5543P006	1349

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EXAMINER
CHANKONG, DOHM

ART UNIT	PAPER NUMBER
2152	

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 March 2006</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9 and 11-14* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-9 and 11-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1>   This action is response to Applicant's amendment, filed 3.29.2006. Claims 1, 7 and 9

have been amended. Claims 1, 3-9 and 11-14 are presented for further examination.

2>   This is a final rejection.

Response to Arguments

3>   Applicant's arguments with respect to the 35 U.S.C § 112 rejections are persuasive.

These rejections are therefore withdrawn.

4>   Applicant's arguments with respect to claims 1, 3-9 and 11-14 have been considered but

are moot in view of the new ground(s) of rejection necessitated by Applicant's amendment.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5>   Claims 1, 3-9 and 11 are rejected under 35 U.S.C § 102(e) as being anticipated by

McCanne et al, U.S Patent No. 6.785.704 ["McCanne.2"], in view of Horikawa et al, U.S

Patent No. 5.822.320 ["Horikawa"].

6>   Horikawa was cited in PTO-892 by Examiner, filed 8.17.2004.

7>   As to claim 1, McCanne.2 discloses a method, comprising:

receiving, at an information object repository, a request for an information object at

an address identified by a uniform resource locator (URL) [column 23 «lines 14-17» | column

25 «lines 57-66» where : McCanne.2's cache corresponds to a repository]; and

mapping the URL to a corresponding anycast address for the information object

[column 23 «lines 14-17 and 56-60» | column 26 «lines 25-27» where : the cache resolves the

URL to an anycast address for the web servers that have the requested content].

resolving the anycast address for the information object to a unicast address for the

information object [column 21 «lines 9-16» | column 23 «lines 54-67»]; and

obtaining a copy of the information object at the corresponding unicast address

[column 23 «lines 54-67»].

McCanne.2, however, does not expressly disclose the resolving of the anycast address

comprising sending an anycast resolution query to the anycast address according to an

anycast resolution protocol.

8>   Horikawa is directed towards an anycast address resolution protocol in an ATM

network [column 3 «lines 13-30»]. Horikawa discloses resolving an anycast address by

sending a request (query) to the anycast address [column 5 «lines 5-37»], whereby a

correlated unicast address is returned [column 5 «lines 59-66»]. It would have been obvious

to one of ordinary skill in the art to incorporate Horikawa's anycast address protocol into McCanne's anycast system. Horikawa's teachings provide would improve McCanne's system by achieving proper anycast address resolution even if a terminal has been moved [see Horikawa, column 7 «lines 40-51»].

9>   As to claim 3, McCanne.2 discloses the method of claim 1 further comprising sending the information object to the client [column 23 «lines 14-23 and 54-63»].

10>   As to claim 4, McCanne.2 discloses the method of claim 3 wherein the request is received at an information object repository that is topologically closer to the client than any other information object repository [column 13 «line 45»].

11>   As to claim 5, McCanne.2 discloses the method of claim 4 wherein the information object repository is selected according to specified performance metrics [column 21 «lines 58-62»].

12>   As to claim 6, McCanne.2 discloses the method of claim 5 wherein the performance metrics comprise one or more of: average delay from the selected information object repository to a source of the request, average processing delay at the selected information object repository, reliability of a path from the selected information object repository, available bandwidth in said path, and loads on the selected information object repository [column 21 «lines 58-62»].

13>   As to claim 7, as it does not teach or further define over the previously claimed

limitations, it is similarly rejected for at least the same reasons set forth for claim 1.

14>   As to claim 8, McCanne.2 discloses the information object repository of claim 8 being

further configured to advertise the anycast address using a network layer anycast routing

protocol [column 15 «lines 9-14»].

15>   Claim 9 is a claim to for a network with elements that perform the steps of the

method of claim 1. Therefore, claim 9 is rejected for the same reasons as set forth for claim 1,

supra.

16>   Claim 11 is a claim for a network with an element that performs the step of the

method of claim 4. Therefore, claim 11 is rejected for the same reasons as set forth for claim 4,

supra.

17>   Claims 1, 3-9, and 11-14 are rejected under 35 U.S.C § 103(a) as being unpatentable over

McCanne et al, U.S Patent No. 6.415.323 ["McCanne"], in view of McCanne.2, in further

view of Horikawa.

18>   As to claim 1, McCanne discloses a method, comprising:

        receiving, at an information object repository, a request for an information object at

an address identified by a uniform resource locator (URL) [column 15 <lines 59-60>];

mapping the URL to a corresponding anycast address for the information object [column 15 <lines 59-65>];

resolving the anycast address for the information object to a unicast address for the information object [column 10 <lines 36-43> and column 16 <lines 9-12 and 27-29>];

McCanne discloses that the repository is enabled to directly service the client request [column 14 «lines 31-32»] but does not express disclose that the repository obtains the information object at the corresponding unicast address. McCanne also does not expressly disclose the resolving of the anycast address comprising sending an anycast resolution query to the anycast address according to an anycast resolution protocol [see rejection of claim 1 under McCanne.2, in view of Horikawa].

19>   McCanne.2 is directed towards a content distribution system and specifically moving data streams from content producers to requesters of those streams. McCanne further discloses an information object repository that is enabled to directly obtain a copy of an information object at a corresponding unicast address [column 23 «lines 14-23 and 48-67»]. McCanne.2's cache corresponds to an information object repository, that interprets the URL request for an information object and subsequently retrieves the object from a particular Web server if the object is not currently located in the cache. It would have been obvious to one of ordinary skill in the art to modify McCanne with McCanne.2's enhanced repository capabilities. As discussed McCanne does disclose that the repository is capable of directly servicing client requests but was silent as to the functionality of such a capability.

McCanne.2 clearly provides a teaching of such functionality that would enable McCanne's repository to directly retrieve requested information objects from a server.

20>   As to claim 3, McCanne discloses the method of claim 1 further comprising sending the information object to the client [column 16 <lines 9-12>].

21>   As to claim 4, McCanne discloses the method of claim 3 wherein the request is received at an information object repository that is topologically closer to the client than any other information object repository [claim 10 where: the nodes in the anycast group are equivalent to an information object repository].

22>   As to claim 5, McCanne discloses the method of claim 4 wherein the information object repository is selected according to specified performance metrics [column 17 <lines 48-58 and claim 8].

23>   As to claim 6, McCanne discloses the method of claim 5 wherein the performance metrics comprise one or more of: average delay from the selected information object repository to a source of the request, average processing delay at the selected information object repository, reliability of a path from the selected information object repository, available bandwidth in said path, and loads on the selected information object repository [column 17 «lines 48-58» and claim 8].

24> As to claim 7, as it does not teach or further define over the previously claimed limitations, it is similarly rejected for at least the same reasons set forth for claim 1.

25> As to claim 8, McCanne discloses the information object repository of claim 8 being further configured to advertise the anycast address using a network layer anycast routing protocol [column 12 <lines 44-54> and column 20 <lines 40-52>].

26> Claim 9 is a claim to for a network with elements that perform the steps of the method of claim 1. Therefore, claim 9 is rejected for the same reasons as set forth for claim 1, supra.

27> Claim 11 is a claim for a network with an element that performs the step of the method of claim 4. Therefore, claim 11 is rejected for the same reasons as set forth for claim 4, supra.

28> As to claim 12, McCanne discloses the network of claim 11 further comprising a Web router configured to select the information object repository that is closer to the requesting client than any other of the number of information repositories in the network without regard as to whether the information object is actually stored at the selected information object repository [column 19 <lines 14-26> and column 20 <lines 55-58>].

29> Claim 13 is a claim for a network with an element that performs the step of the method of claim 5. Therefore, claim 13 is rejected for the same reasons as set forth for claim 5.

30>   Claim 14 is a claim for a network with an element that performs the step of the

method of claim 6. Therefore, claim 14 is rejected for at least the same reasons set forth for

claim 6.

31>   Claims 1, 3-9, and 11-14 are rejected under 35 U.S.C § 103(a) as being unpatentable over

McCanne et al, U.S Patent No. 6.415.323 ["McCanne"], in view of Yamano et al, U.S Patent

No. 6.314.088 ["Yamano"], in further view of Horikawa.

32>   As to claim 1, McCanne discloses a method, comprising:

        receiving, at an information object repository, a request for an information object at

an address identified by a uniform resource locator (URL) [column 15 <lines 59-60>];

        mapping the URL to a corresponding anycast address for the information object

[column 15 <lines 59-65>];

        resolving the anycast address for the information object to a unicast address for the

information object [column 10 <lines 36-43> and column 16 <lines 9-12 and 27-29>];

        McCanne discloses that the repository is enabled to directly service the client request

[column 14 «lines 31-32»] but does not express disclose that the repository obtains the

information object at the corresponding unicast address. McCanne also does not expressly

disclose the resolving of the anycast address comprising sending an anycast resolution query

to the anycast address according to an anycast resolution protocol [see rejection of claim 1 as

being unpatentable over McCanne.2, in view of Horikawa].

33>   Yamano discloses an information object repository that is enabled to directly obtain a
copy of an information object at a corresponding unicast address [Figure 5 | column 5 «line
64» to column 6 «line 14»]. Yamano's server corresponds to an information object repository,
that interprets the client's request for an information object and subsequently retrieves the
object from a particular Web server if the object is not currently located in the originally
contacted server by obtaining the ATM (unicast) address of the server. It would have been
obvious to one of ordinary skill in the art to modify McCanne with Yamano's enhanced
server capabilities. As discussed McCanne does disclose that his repository is capable of
directly servicing client requests but was silent as to the functionality of such a capability.
Yamano clearly provides a teaching of such functionality that would enable McCanne's
repository to directly retrieve requested information objects from a server. Further, Yamano
is directed at improving current anycast techniques for obtaining information [column 1
«lines 31-37»].

34>   As to claims 3-9 and 11-14, see claim rejections above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this
Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a).
Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE
MONTHS from the mailing date of this action. In the event a first reply is filed within
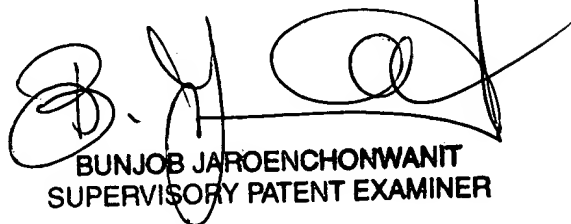
TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than

SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dohm Chankong whose telephone number is 571.272.3942.

The examiner can normally be reached on Monday-Thursday [7:30 AM to 4:30 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bunjob Jaroenchonwanit can be reached on 571.272.3913. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

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9197 (toll-free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-9199 (IN USA

OR CANADA) or 571-272-1000.

DC

BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER